



March 21, 2014

The Honorable Chris Koster
Missouri Attorney General
Supreme Court Building
207 W. High St.
P.O. Box 899
Jefferson City, MO 65102

Re: The West Lake-Bridgeton Landfill Fire – Evaluating the Practicality of Remediation

Dear Attorney General Koster:

Please find enclosed for your consideration the Center's technical report, *The West Lake-Bridgeton Landfill Fire: a Perfect Storm*, with our analysis of the severity of the problem at the site and recommendations for those remedial actions that remain feasible to accomplish.

When we began developing this analysis at the end of 2013, the general consensus among public officials was to give deference to Republic's assurances, and to accept that a considerable distance separated the fire from the radioactive wastes illegally dumped at West Lake.

Because those assurances masked the real threats to the health of the people living or working in the vicinity, our task then was to assemble the wealth of existing data from the company's own files that demonstrated otherwise—namely that the radiotoxins had migrated widely throughout the landfill. Also, the fire was hotter than acknowledged and not confined to the South Quarry by the gas injection wells. It was advancing on the North where, at the far end, lie the radioactive wastes that remain from those illegally dumped in Area 1 forty years ago.

That is to say, the worst case concern in everyone's mind of contact between the fire and radioisotopes has, in fact, begun unfolding for the past year in slow motion. It has been unseen only because radioactivity is invisible and odorless, and the instruments that have been installed to measure radioactivity only detect an entirely different type of gamma radiation than the alpha emitting radium isotopes buried here.

Since that time, the accumulating weight of new evidence has made it substantially more challenging to any longer envision a practical means of containing the crisis and reducing the risks to the people who live and work around Bridgeton. You have recognized the fact that radioactivity has spread into the North Quarry, but much of this new information that follows and complicates remedial efforts is not yet generally understood. Specifically –

- ! ***Protecting the public from radioactive emissions caused by the fire now interacting with the radiotoxins in the South Quarry.*** There is increasing recognition that radioactive wastes have migrated out of Area 1 into the North Quarry because loose powder was haphazardly dumped without containment and the site's hydrological setting lies in an alluvial flood plain.

Even the company's own groundwater tests show the radiotoxins have also dispersed into the South Quarry where temperatures are the hottest. Alpha emitting particles may only be extremely dangerous if inhaled or ingested, but they are now being volatilized into a gaseous form that is escaping into the air, precisely into the form that is most hazardous. For the past year, downwind neighbors have been at risk of inhaling that radiation.

The EVOH liner was installed to protect the public, and it may partially reduce odors. Unfortunately, the liner cannot prevent the release of radiotoxins. For the decay rate of ionizing radiation is not neutralized when it is burned in the flare of the associated gas collection system. Because the fire is uncontrolled, and the liner and flare is unable to destroy radioactivity, the release of alpha particles into the air cannot be contained.

- ! ***Isolating Area 1 from the fire.*** The reality of the fire interacting with widely dispersed radioactive wastes for more than a year, along with alpha particles escaping into the atmosphere, by itself is a matter of very serious concern. But, far worse is the specter of the fire next reaching the concentrated radiotoxins that still remain in Area 1, which include large quantities of pyrophoric thorium isotopes that can spontaneously combust.

The isolation barrier intended to protect the remaining radioactive wastes in Area 1 will be even more difficult to complete in the time remaining because of further complications beyond ongoing jurisdictional transitions. For one thing, the gas injection wells have not arrested the South Quarry fire in the narrow neck between the two quarries. As another, a several hundred-foot buffer must be maintained between the advancing fire and the open excavation. If oxygen infiltrates the waste mass through the trench, that can cause the fire to leap forward several hundred feet overnight. Finally, the elevated temperatures in the nearby North Quarry gas wells cannot be dismissed because of their low carbon monoxide levels. Rather, those temperatures are more likely due to a metal-water reaction, just like at the ongoing aluminum dross fire at Republic's Countywide Landfill. Worse chemical interactions in the North Quarry may be expected when the South Quarry fire reaches it.

Perhaps the only realistic hope to complete the barrier is if the South Quarry fire takes several more months to exit the narrow neck it has recently crossed before it proceeds to advance across the North Quarry and interact with the reactive metal fire in that quarry.

On a contingent basis in case that opportunity arises, work on the barrier should proceed immediately in stages, with each 200-foot trench segment completed and repacked with inert fill before work begins on the next segment. No further time should be wasted putatively searching for a clean corridor through the southern perimeter of Area 1, because none exists. Instead, preparations should be made for protective gear, limiting exposures and disposal in NRC licensed facilities for low level radioactive wastes.

The very serious and potentially fatal risks borne today by downwind populations presently cannot be contained and are due to the gross negligence of Republic and its predecessor companies. That is totally unacceptable. Republic should be ordered to offer relocation assistance to those most directly impacted that makes those nearby residents whole for the lost value in their homes and the associated transaction costs involved in moving. Testing for alpha levels in the soil and atmosphere of those areas downwind of the landfill should begin as soon as possible in order to identify those who at greatest risk to be given assistance first.

Relocation of significant numbers will be substantially more expensive than the already significant costs of remediation necessary to maintain this nonconforming landfill, which should never have been sited in Bridgeton. At the same time, Republic acquired the site as part of its merger with Allied Waste Services in 2008, four years after the landfill closed, and the company has never received any revenues from the facility. That salient factor can be expected to dominate the thinking of its corporate executives and board of directors.

For this reason, managing the financial side of protecting the community will very soon become even more important than managing the new barriers, filters and pumps. Presumably, Republic has already prepared a strategic analysis on how to structure a Chapter 11 bankruptcy petition in order to abandon the Bridgeton Landfill or discharge all of the accumulated remediation costs. That is why this report lays out detailed options for how to maximize Missouri's claim to Republic's financial resources in order to at least partially compensate the people and businesses in north St. Louis for the devastation the company's negligence has inflicted on their lives.

The citizens of the State of Missouri should be proud to have as diligent a defender of their interests as the Office of the Attorney General has been in this terrible tragedy. We hope that the advice offered in this report assists you in completing your tasks.

On your watch, you have been handed the worst landfill disaster in American history, far worse than happened at Times Beach thirty years ago. Everything that can go wrong has, and in the worst possible combination. Consequently, very few options remain to contain the damage. It is the proverbial perfect storm.

We know that you will do the best that can be done under these trying circumstances.

Sincerely,
CENTER FOR A COMPETITIVE WASTE INDUSTRY

Peter Anderson

By: _____
Peter Anderson
Executive Director

PA/ch

Enclosure (1)

cc: Hon. Jay Nixon, Governor
Hon. Sara Parker Pauley, DNR Director
Senator Roy Blunt
Senator Claire McCaskill

Representative Lacy Clay
Representative Ann Wagner
Karl Brooks, EPA7 Administrator
Col. Christopher Hall, District Engineer